GENERAL

The model G 246W is a 208 volt Griddle. Factory mired For three phase operation (see wiring diagram # 41394 for single phase connections).

The Griddle has two control panels housing two control thermostats and two indicator lamps For each half of the Griddle.

The Griddle has an (total of four) individual thermostat For each of the four heating surfaces.

The Griddle has a four-section (eight elements arranged in Four groups of two elements) heating surface.

Each element section and its control thermostat have a pilot lamp assembly (indicator) to show when the element is heating.

The cooking surface of the Griddle can be set for variable temperatures across the cooking surface (ie. hotter in the center or at one side or the other).

Service information and procedures contained in the following pages are a guide for maintenance of the Griddle. Service and repair of this equipment should be performed only by qualified and trained service personnel.

It is our belief that the information enclosed in this manual is accurate in detail **as** of the date of publication and is subject to revision as further information becomes available.

SERVICE PROCEDURES

NOTE: The pilot lamps an this unit cycle on and off with the thermostats when the power is on. the pilot lamps can be used in the Following manner to aid in troubleshooting the unit (see troubleshooting guide).

To service the Griddle, access to the back side of the control panels of griddle is required, and to the underside of griddle may be required.

WITH POWER TURNED "OFF". Open the control panels, proceed with tests below to make your continuity tests.

ELEMENT TESTS

When testing the elements for continuity and/or resistance at the thermostat terminals you mill be reading TWO elements in PARALLEL and the cold resistance will be one half that of an individual element, or 7.3 to 8.85 Ohms.

If you read 15.9 to 17.7 Ohms at the thermostat terminals and all the element jumpers (#5) are installed, then one element is OPEN (bad). Replace the element.

If you read no continuity, check for a broken wire or open (bad) elements. Replace wire if broken. IF not, replace the defective element.

THERMOSTAT TESTS

The thermostat Pt.# 61396 has an operating range of 100 to 450 degree F. with two pole 30A. contacts rated at 277U resistive load.

With power "OFF" to the griddle, test thermostat (#1) For continuity, advance the thermostat to a temperature setting higher than the griddle surface.
The contacts should now be CLOSED. IF not, the thermostat should be replaced.

Disassembly of element and thermostat assemblies.

Use care in disassembling the control panels and thermostat assemblies, **as** the capillary tubes are Fragile.

After determining the parts that must be replaced, remove the bottom cover (# 31) screws and the bottom cover plate (#l). See Drawing # 21054.

It will be necessary to remove the insulation pad over the element and thermostat clamps in order to remove the element and sensing bulb clamps.

It mill also require removing the Jumper straps (#5) that are over the insulation pad in that **area.**

To remove the insulation pad, bend the insulation tie-down tabs (#18 **see** Drawing # 21054) into a vertical position and expose the element and thermostat clamps by carefully Folding the insulation pad away From the area that requires service.

Remove the element and/or thermostat clamps that are holding the components that require service. Use care in disassembly to avoid damage to thermostat capillary tube, bulb assemblies, electrical wiring and components (Note routing of each capillary tube for reassembly, see drawing # 41397 & 21054).

REPLACEMENT OF ELECTRICAL and MECHANICAL COMPONENTS

When replacement oF elements is required, make sure the new elements are mounted Firmly to bottom of the griddle by the element clamps (# 4).

When replacing element or thermostat miring use only factory approved type mire, see parts list For correct specification and type.

When installing new components use EXTREME CAUTION to insure that the capillary tube/bulb units are NOT kinked or flattened. Route excess tube length into gentle bends to avoid kinks and sharp bends.

In replacing heating elements, control thermostats, associated wiring and electrical components be sure to support all terminals with pliers when tightening attachment terminals to avoid damage to components.

Use standard service practice of full contact between platen (Griddle Plate) and heating elements. Use anti-sieze on all studs For mounting element and sensing bulb clamps. Element clamps and electrical connections must be tight and Free From contact with surrounding wires and connections.

Reassembly (see drawing #41337)

After replacing thermostats, re-mount thermostat body to control panels after sensing tube assemblies have been installed in the holding clamps (#2, **see** drawing # 41397) located next to the element mounting clamps (#4 see cautions on capillary tubes above).

Be sure that the sensing bulb assemblies are inserted into the mounting clamp (#19 **see** Drawing # 21054) and under the element clamp that the thermostat is to control (not crossed over to the next element assembly).

Rewire per wiring diagram # 41394 and re-tighten all electrical connections (support each component connection while tightening;
too much mechanical pressure from hand tools may damage components).

INSPECTION AFTER REPLACEMENT OF COMPONENTS

Inspect the complete Griddle For proper routing of electrical mires, electrical, mechanical components.

CAUTION:Recheck thermostat wire terminals For tightness prior to Final mounting of control panel.

During Final mounting of control panel, make sure thermostat capillary tubing is stowed well clear of all "hot" terminals on thermostat housing and elements.

TESTING GRIDDLE OPERATION

Connect Griddle to 208 Volt power source and turn on each thermostat and check L1-L2-L3 current draw with an ampmeter. See miring diagram Car name plate) for correct line current drain . After all elements have been tested and Found to be within normal readings, the Calibration Procedure should be performed (see calibration procedures).

EQUIPMENT REQUIRED TO CALIBRATE THERMOSTATS

A- Digital thermometer (Pyrometer).

B- Remote heads (thermocouples) for the above tester.

C- Thermostat knob(s) (see helpful hint) with hole through center. USE SPARE KNOB ONLY!

D- Small flat blade screw driver.

GRIDDLE SURFACE PREPARATION

Locate and mark Four spots **as** follows on the Griddle surface to measure the surface temperature.

Locate the center line both horizontal and vertical on the griddle surface. Pencil the lines on the griddle Surface.(a line side to side and top to bottom)

#1- 12 inches in from the front edge of the cooking surface and 6 inches in from the right edge.

#2- 12 inches in from the front edge of the cooking surface and 6 inches in from the left edge.

#3- 12 inches in from the front edge of the cooking surface and 6 inches to the left of the center line.

#4- 12 inches in from the front edge of the cooking surface and 6 inches to the right of the center line.

HELPFUL HINT

To calibrate each thermostat it requires access to the calibration screw located inside the hollow control shaft of the thermostat. A modified control knob(s) (drill a hole through the center of a spare knob (use only a spare knob, not one from the griddle!) gain screw driver access to adjusting screw) without removing knob(s) from thermostat.

CALIBRATION PROCEDURE

With power (208V. 1 or 3 ph.) connected to Griddle, do the following: Set all four thermostats to 200 degrees F., allow the Griddle to cycle through one complete heating cycle of each of the four elements and thermostats. There mill be some overshoot on the first heating cycle.

Place the thermocouple sensing head on spot # 1 as marked in preparation section above. You will need to test all four spots in this procedure.

Place modified control knob(s) on thermostat shaft(s) and set to 200 degrees F.

Insert small flat blade screw driver in thermostat shaft and align into the calibration screw inside thermostat shaft. CAUTION NOTE:
When adjusting the calibration screw on the thermostat. DO NOT TURN MORE THAN ONE FULL TURN! SEVERE DAMAGE TO THE THERHOSTAT MAY RESULT.

Turning the calibration screm clockmise decreases the temperature, and counter-clockwise increases the temperature. 1/8 of a turn will cause approximately 10 Degrees F. of change in temperature. WARNING, SEE CAUTION NOTE ABOVE!

When thermometer (Pyrometer) indicates 2OO degrees F., adjust the calibration screw (clockwise) to cause the thermostat(s) to open (The pilot lamp mill go OFF **as** the thermostat contacts open) . Repeat For each of the Four marks on the Griddle.

Advance the control knob(s) to read E50 degrees F. and match pilot lamp. The correct reading on the thermometer (Pyrometer) is 243 to 253 degrees F.(when the thermostat opens the pilot lamp mill go OFF). Note the reading and if it is mithin the limits listed then no further calibration for that location mill be required.

If the reading is out of the range For the 250 degrees F. setting, then adjust the control knob(s) to 300 degrees F. and match the reading on the thermometer (Pyrometer). As the pilot lamp goes OFF the reading should be 293 degrees F. to 303 degrees F.. If out of this range adjust the calibration screw inside the thermostat shaft(s) to bring the cut off into the correct range.

Set the control knob(s) back down to 220 degrees F. and allow the Griddle to cool to the point that the thermostat(s) closes (turns back ON) . Watch to see if it turns OFF within 193 to 223 degrees F. IF it is NOT mithin these limits then repeat the calibration procedures For that thermostat

When all Four sections have readings that are mithin the limits stated above calibration is completed.

Model G-245W Griddle Suggested repair parts inventory items

PART #	Rec. Qty.	DESCRIPTION
50513	4	Element, 2500 W. 208 V.
50516	2	Light, signal amber
52054	2	Jumper, element
56051	1	Insulation pad kit
57707	100 ft.	Wire, 12Ga. Hi. Temp.
5BB52	100 ft.	Wire, 18Ga. Hi. Temp. Sil. Rub.
61396	2	Thermostat, control
61490	2	Knob, thermostat

WELLS Manufacturing Co. Drawing No. 21054 Page 1 of 2 Parts List
For Model # G246W (08/18/86)

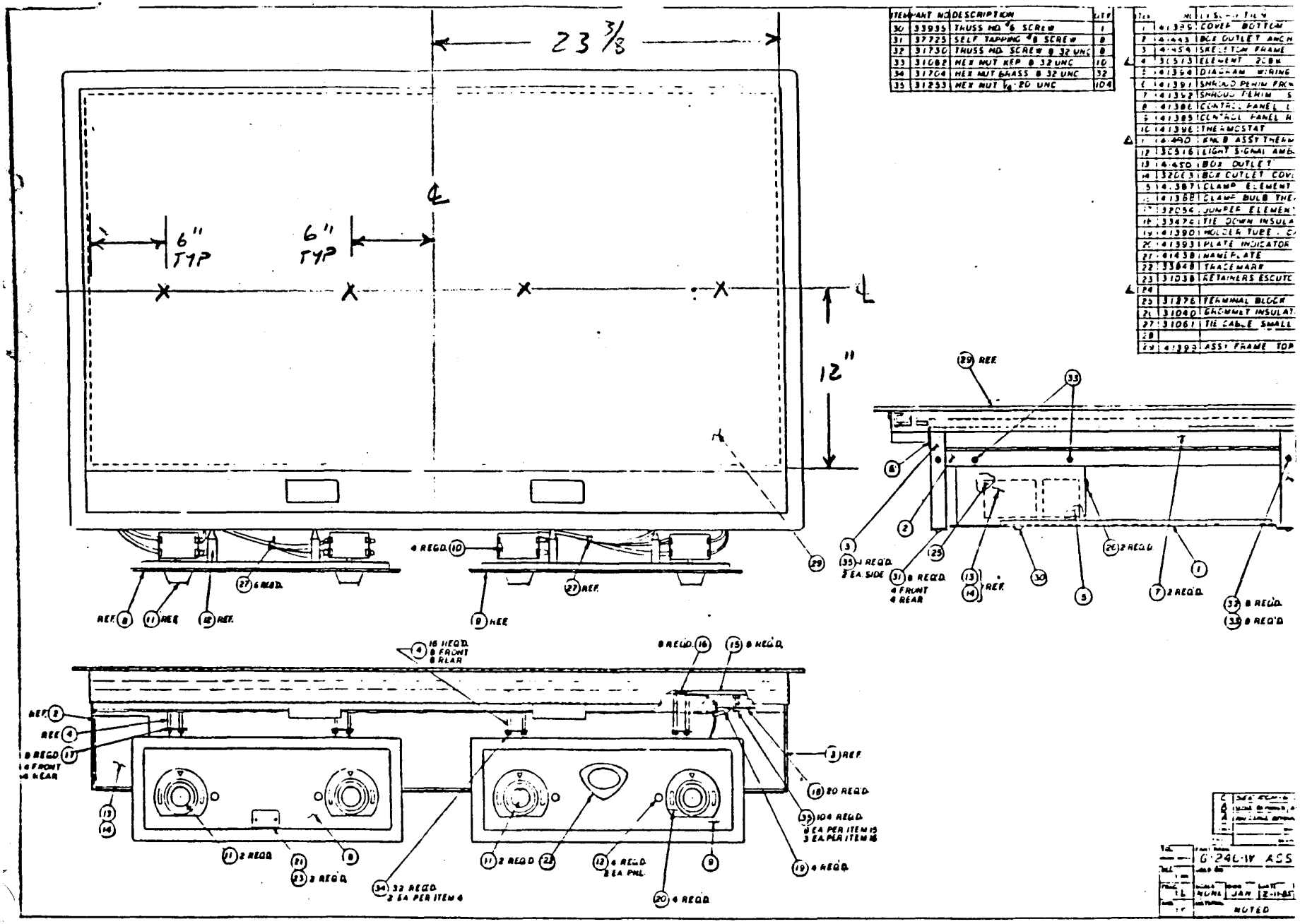
ITEM #	PART NUMBER	DESCRIPTION	# PER UNIT	NOTES
1	61389	Cover, bottom	1	
2	41443	Anchor, electrical box	1	
3	41454	Skeleton, Frame assembly	2	
4	50513	Element, 20BV. 2500V.	8	
5	61394	Diagram, wiring	1	
6	41391	Shroud, Front and rear	2	
7	41392	Shroud, side	2	
8	41386	Control Panel, left	1	
9	41385	Control Panel, right	1	
10	61396	Thermostat	4	
11	61490	Knob, thermostat	4	
12	50516	Light, signal amber	4	
13	41450	Box, electrical outlet	1	
14	52063	Cover, electrical outlet	1	
15	61387	Clamp, element	8	
16	61388	Clamp, thermostat bulb	8	
17	52054	Jumper, element	8	P-10
18	53474	Clip, insulation tie-down	20	
19	61390	Holder, tube thermo. capillary	4	
20	61393	Plate, indicator thermostat	4	
21	41438	Nameplate, specification	1	
22	55849	Trademark, logo	1	
23	51038	Retainer, escutcheon	3	P-10
25	51276	Terminal Block	1	

P-10 - Pkg. 10 P- 50 - Pkg. 50 A/R - As Required F/0- Factory
P-25 = Pkg. 25 P-100 = Pkg. 100 L/P = Local Purchase Order

(08/18/86)

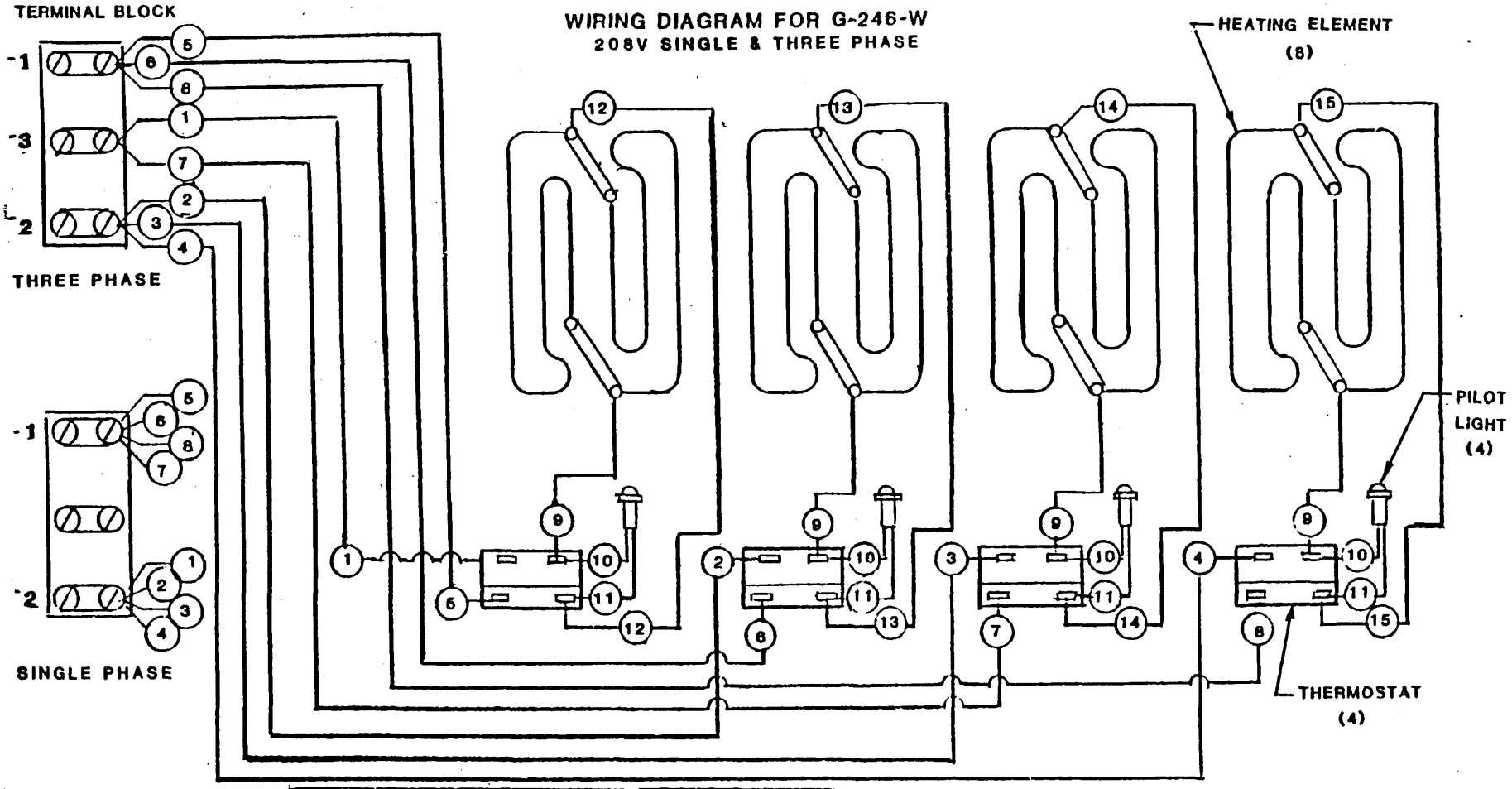
ITEM #	PART NUMBER	DESCRIPTION	# PER UNIT	NOTES
26	51040	Grommet, insulation 7/8 in.	2	
27	51061	Tie, cable small	6	
***	61623	Chute assembly, grease disposal	2	
29	41399	Frame top assembly	1	
30	53935	Screw, truss hd. # 5	1	
31	37725	Screw, st. # 8	8	
32	31730	Screw, truss hd. 8-32	8	
33	31082	Nut, hex kep 8-32 UNC	10	
34	31704	Nut, hex 8-32 UNC Ni.	32	
35	31253	Nut, hex 1/4-20 UNC	104	
		*** = SHOWN ON SEPARATE SHEET		
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				

P-10 Pkg. 10 P-50 - Pkg. 50 A/R - As Required F/O - Factory
p-25 Pkg. 25 P-100 - Pkg. 100 L/P - Local Purchase Order


23 3/8
6" TYP
6" TYP
12"
4 REQ'D.
REF.
REF.
REF

PART NAME	REVISIONS		DATE	PART NO.	DWN.	WELLS
WIRING DIAGRAM				41394	JAN	
G-246-W	A	AMPS CHANGED, 89.7 WAS 62.4, 56.9 WAS 41.6, 98.5 WAS 72.1	JB 5-4-85	SCALE- NONE	CKD.	
MATERIAL 3"X 5" LABEL ON WHITE	B	AMP CHG. 62.4 WAS 69.7 (2 PL) 41.0 WAS 56.9 96.2 WAS 98.5	JHF 6-13-85	DATE- 2-11-85	APV.	
STOCK #467 ADHESIVE	C	41.6 WAS 41.0 JB	8-26-85	STANDARD TOL. Dec. ± .005 Frac. ± 1/64		
	D					

WIRING DIAGRAM FOR G-246-W
208V SINGLE & THREE PHASE



NOMINAL AMPS PER LINE							
THREE PHASE 208V						SINGLE PHASE	
L_1	L_2	L_3				208V	
62.4	62.4	41.6				9[redacted]	

REV: C

P/N 41394